American Farmer,

AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

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"AGRICOLAS." . . . . *Virg.*

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TERMS.

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[*From the Transactions of the N. Y. State Agricul. Society.*]

INSECTS

INJURIOUS TO THE FARMER & GARDENER,

A SERIES OF ESSAYS, BY WILLIS GAYLORD.

(*Continued.*)

In the southern part of the United States, stored wheat suffers much from the attacks of the weevil, *Curculio granaria* of Linn, *Calandra granaria* of modern entomologists. This insect is well described by Wilson and by Dr. Harris. It is a slender beetle of a dark or pitch-red color, with a long slender snout, a punctured thorax, and furrowed wing-covers. It is rarely found at the north, unless in wheat brought from the middle or southern parts of the Union. Two years since we received in November a sealed envelope containing a sample of the new wheat from the Mediterranean, said to be fly proof, and forwarded by that active friend to agriculture, the Hon. Mr. Ellsworth, of Washington. As it was too late in the season to sow, I was obliged to keep it over, but on opening the package I found a number of the beetles of the wheat kind within, escaped from the kernels that had contained them. Selecting some pure flint wheat, kernels all perfectly sound, we enclosed a dozen of these weevils with this wheat in a large phial, corked so as to prevent their escape. The phial was wrapped in paper and placed where it would not be disturbed, except for examination. Opening it occasionally for more than a year and a-half, I found my weevils, with the exception of one or two, all living, and appearing to enjoy themselves much on the wheat, a large portion of the kernels of which they had hollowed out. When disturbed they simulated death very successfully, but when turned out on paper would soon be making off. How long they would have lived I cannot say, as after keeping them nearly two years, the mass in which they lived got dampened in some way, and when again examined all was moulded together. During the time I kept them there was no increase of their numbers. The black weevil, *Calandra remota-punctata*, mentioned by Dr. Harris as found in New-York, we have never seen. If wheat had suffered to any extent from this weevil, it would doubtless have attracted more notice.

Kiln-drying the wheat effectually destroys the weevil; and from some late experiments, recorded in the Tennessee Agriculturist, it appears that if a hogshead, with one head taken out, is inverted over a fire until thoroughly heated, and then immediately filled with wheat and headed up, all weevils in the wheat will be killed, and the grain may be kept in safety until wanted for use. Keeping a granary well ventilated, cool, and frequently stirring the grain, will do much towards preserving it from insects.

There are two kinds of moths that attack grain; one, the *Tinea granella*, of European entomologists, produces two broods in a year, appearing generally in May and August. The moth or miller lays its eggs on the grain, and the grub or worm, when hatched, feeds on the grain—spinning a kind of web which envelopes several other grains, making a place of refuge. Wheat, rye, oats and barley are subject to attacks, and where they become numerous they are a dreaded pest. The worm of this moth is a "soft naked caterpillar, with sixteen legs, and measuring four or five-tenths of an inch. The color is a light ochre or buff color, with a reddish head." (Dr. Harris.) This moth we have never observed, though Dr. Harris thinks it is to be found in this country. The other grain moth, and this is not uncommon in the United States, is the Angoumois moth, *Alucita cerealella*, of Olivier. This moth lays its eggs on the ears of wheat, rye, or barley, usually while growing in the field. When hatched, the larvæ penetrates a kernel and feeds on its contents. Within the hollow so made it undergoes its transformations, having first gnawed a hole nearly through the hull or the chaff, through which the perfect insect, or moth, easily escapes.

Three years since we received from a gentleman in Georgia a specimen, consisting of a ear of California, or rather Egyptian, wheat (it resembling the latter in the form of its head, color of the grain, &c., in every essential point.) On opening the envelope, which had been carefully secured, a number of moths showed themselves, all of which were instantly caught and destroyed. The holes through which they had made their way from the kernel through the chaff were distinctly seen, and not being quite ready to use the grain it remained in the ear, and before sowing several more moths made their appearance. The moth agreed in every respect with the description of the Angoumois moth, and we have no doubt it was the same. The ear of wheat, which contained two hundred and three kernels, was grown in Georgia from seed brought from Mexico: hence its name. More than twenty years since we saw wheat in Western New-York containing the larvæ of a moth, which resembled, as near as can be recollected, the moth of which we are speaking. Fortunately the seasons of the north are unfavorable to its increase; and hence, if occasionally found, it rarely does injury. At the south it is quite destructive. Kiln-drying is probably the most certain way of destroying all these enemies of grain, though, were it as easy, immersion in boiling water would be as effectual, without doubt. In some experiments made by the French savans, it was found that at a temperature of 167° of Fahreheit, applied for 12 hours, or a temperature of 104° for 48 hours, all these grain-worms were killed. The weevil that infests the pea, does not prevent its vegetating when sown, but the grain-weevil or the grain-moths render the grain attacked by them useless. Where grain is suspected, it should always be tested before using.

But if our northern grain crops escape to a great extent the ravages of the grain moth, they are attacked by other enemies, scarcely, if any, less destructive. About the year 1828 or '29 the attention of farmers in the north of Vermont, and the adjacent districts of Canada, was called to the appearance of a small worm in the ears of the wheat, which destroyed the kernels, and in some instances were so numerous as to cause a total failure of the crop. It spread rapidly east and west, at the rate of some ten or fifteen miles a year; and at the present time is in possession of nearly the whole of the New-England States, and no inconsiderable part of New-York. It was reported that the what worm has this year been found as far west as Syracuse, but we have as yet had no positive evidence that such is the fact. It may be considered established as far as Onedia county. As yet, however, though occasionally seen, it does litule damage in New-York, except in the river counties, above and near Albany. This grain worm, for we shall see there are more than one bearing that name, resembles so closely the larvæ of the European what fly, *Cecidomyia tritici*, and the patent insect is so similar, that there is litule doubt of their identity. The wheat fly is in form something like a musquito, only smaller; body orange colored; legs long and slender, as usual with the gnat family; and the wings transparent, changeable in color, or reflecting the colors of the rainbow. Having had frequent opportunities of examining the parent fly of our grain worm, which agrees well with the description given by Kirby and Spence, we think it the same insect—one that has been known and described in England for nearly one hundred years. It is possible, however, there may be some shades of difference, but their appearance and habits as described by Gullet and Masham, (see Dr. Harris, page 437,) are so like ours, that they may be considered the same for all purposes. These flies make their appearance in June, or at the time wheat is usually in blossom, in great numbers, and are most active in depositing their eggs immediately after dark; few being found in the daytime, or after nine o'clock in the evening. In the daytime they are secreted among the leaves and stems of the grain, rarely coming forth until after sundown. The female is provided with an ovipositor, or retractile tube, which she thrusts with her egg between the scales of the chaff, depositing them in clusters of from five to twenty. In some instances from thirty to forty larvæ have been found within the chaff of a single grain. The larvæ when first hatched are colorless, but they soon become of a deep orange, or bright rust color; are true maggots without feet, working their way with difficulty from one place to another. They gather around the central point of the chaff where the formation of the kernel commences, and completely nullify or destroy the grain. When full grown, the maggot is about one eighth of an inch in length. Some few are changed to the pupa state in the ear, but the greater part fall to the ground, where they finish their transformations, and appear in the spring or summer as perfect insects, ready to deposit their eggs on the growing wheat crop. So great and wide-spread has been the damage occasioned by this insect, that ample opportunity has been had to try all the preventives usual in such cases, and we are sorry to say with very little effect on the whole. Fumigating the fields with sulphur, or smoke from any other materials, will retard their action for a time, and could they be continued might destroy them. All pungent odours are offensive to the grain fly, as they are to the musquito, and that most offensive of all odours, the one proceeding from the skunk, has been tested, and highly recommended as a preventive. Quick lime strewed over the field while in blossom, has been highly recommended by Mr. Colman and others, but its success does not appear to be uniform, perhaps owing to its not being applied at the proper time or in sufficient quantities. A half bushel of lime mixed with the same quantity of ashes, and sown on an acre, has produced good results. In the case where lime has failed, Mr. C. has suggested that the sowing took place too early, and that two or three sowings might be advisable, so as to certainly cover the time of the fly's appearing. A friend who is an extensive farmer in Rensselaer county, N. Y. assures us that the present year, wheat sown early in autumn, and which of course came forward early in the spring, has wholly escaped the grain worm, while the late sown has suffered materially; and that his experience in former years has convinced him, the same will hold good as a general rule. Where spring wheat is sown, it is found the early sown suffers the most, it being in blossom at the right time for the action of the fly. Sowing spring wheat as late as it will ripen, say the 10th or 15th of May, will save it from the worm; but such late wheat is very apt to blight, and be of inferior quality. Perhaps, where the worm prevails, giving up wheat for a short time, taken in connexion with burning stubbles and deep plowing, would be the safe course.

There is another wheat worm which has been known for a long time in Western New-York, but did not excite much alarm until the one we have been describing made

its appearance in the Eastern States and the river counties of New-York, when it became the subject of general interest and alarm among the farmers of that section of the country. This was owing to the two worms being for a long time considered the same, while they are widely different. Unlike the former grain worm, the present one would in some years be in great numbers, and the next perhaps not one could be found; and in some cases one field would be infested, while the adjoining one would escape. The first grain worm is a maggot, the present a caterpillar; both are reddish or orange colored, but the present one much darker than the former, and it is also longer. We caught a quantity of the worm a few years since and enclosed them in a vial covered with muslin, and put in with them some carefully selected wheat. They fed on this wheat, gnawing the grains, and usually from the germinating end. All died before winter, without passing into the chrysalis state. We have never been able to ascertain positively the parent of this grain worm; but we have frequently found on the ears of wheat about the time of its blossoming a fly, rather larger than the common house fly, slender, clear wings and changeable color, green and yellow, with an ovipositor not retractile, but folding under the belly. This we think is the insect that does the mischief, as we have always found where these are most common the worm is most abundant. All are aware, that in dried fruits, particularly the raspberry, similar worms or caterpillars, are sometimes found. Examining some fresh fruit one day, we found a fly of the kind described, depositing its eggs on several of the berries, and these in a short time hatched and became the same yellow brown worms, with six pair of legs, three pair at each extremity, that infest wheat—at least we could perceive no material differece. There can be little doubt that there are several kinds of flies that at times deposit their eggs in grain; but scientific observers alone are competent to establish and describe the differences. The necessity for this will appear from the fact that these two grain worms and the weevil of the south were considered for a long time as the same: while the parent of the weevil is a beetle, and while the grain worms both have a fly for a parent, one of these worms is a footless grub or maggot, while the other is a caterpillar with twelve legs, moving like an inch-worm or surveyor, and suspending himself when disturbed by a silken thread. This kind of worm we have frequently seen among oats, before and after threshing, and once or twice this or a very similar one in heads of ripened clover. In the latter case it is possible they may have been derived from wheat, as a large quantity unthreshed was in the same barn.

Several years since, we put between three and four hundred shocks of wheat in our barn, but as the weather had been unfavorable, we felt some anxiety about its safety, and occasionally examined the grain: in the course of a fortnight it was found to be heating badly, and the threshing machine was immediately put in operation. After threshing, it was spread in the chaff over two large floors, and stirred daily to air and dry it. In two or three days after threshing, the sides of the floors, the threshing machine, fanning mill, and the flooring over head, were covered and blackened by a small fly, much resembling the Hessian fly in size, but not so long legged, and evidently a different insect. That they were derived from the wheat there could be no doubt, as the chaff and grain was full of them. They all disappeared in a few days, and we have never seen such an instance since. It was before the alarm from the grain worm, or they would have attracted more notice. Certain it is they could not have injured the wheat in which they were found materially, as it was one of the best yields we have ever had, and the grain was of fine quality. That the heat of the mow had the effect of producing a premature metamorphosis is very probable; but the pupa must have been in some part of the straw or chaff, to have made the appearance of the perfect insect possible at that time. The only occurrence of this kind we have seen described, may be found in the "Cultivator," Vol. iii, page 65, in a letter from Mr. Green of Washington county, N. Y. In this case, a farmer who had a quantity of wheat much injured by what was then called the weevil, (but was the first described grain worm,) and by heating in the mow, had it threshed: "Soon after he commenced threshing, he found himself and machine covered with an immense quantity of small flies, which could not fly, being no doubt the production of the weevil, (wheat fly,) and hatched in the fall by the heat of the mow." Were these flies the perfect insect of the larvæ that had destroyed the wheat, or were they the parent of the parasitical insects described by Dr. Harris, and Mr. Herrick as preying upon and destroying so many of the Hessian and barley flies? The subject is a curious one, and full of interest to the farmer.

Indian corn (*Zea mays*) is troubled with fewer insects in proportion to its importance and extent of culture, than almost any other grain; still there are some insects that prey upon it, and occasionally do much injury. The *cut worm* which we have described under section 1, does much mischief at times among corn, cutting it down close to the ground in the same manner as it does cabbages, beans, &c. and the best method of abating the evil, is to hunt up and kill every grub that shows himself as a depredator. It has been asserted that a spoonful of salt spread around a hill of corn, beans, or melons, at the distance of some five or six inches, is an effectual safeguard against the cut-worm, but the remedy must be applied carefully, or it would prove more dangerous than the disease. The "*Spindle-worm*," the larvæ of the *Gortyna Zeæ* (Harris) is so named from being usually found about the upper joint or in the spindle of the corn. It commits its ravages before the spindle shows itself or while it is in the leaves, and its presence is detected by the discoloration of the corn, or by the appearance of numerous round holes in the leaves that form the sheathing of the stem, and which serve as places through which the refuse food of the worm is cast. No ears can be formed on a stalk where the worm shows itself, as it destroys all before they leave their envelop. On opening the corn, the worm will be found, smooth, slightly yellow, and some black about the head: it is, when grown, of the size of a middling goose quill. The best way to treat these insects is to cut up the diseased stem at once, and burn or otherwise destroy it, or it may pass from the stem to the earth, and in safety undergo its transformation. Rice and corn are in the Southern States attacked by a beetle, the *Calandra oryzæ*, much resembling the wheat weevil, except that it has two red spots on each wing cover and is rather smaller. We have frequently seen southern corn seemingly alive with them; and from the fact that some ears of corn sent to us from Carolina, were found to contain a weevil in nearly every kernel, which escaped from them after the reception of the corn, it would seem probable that the southern opinion, that the egg is deposited in the rice or corn, while soft and in the field, is not altogether without foundation. Fortunately for northern grain, this weevil does not seem formed for existence in such a climate as ours, and like the true wheat curculio or weevil, never is injurious in our fields or our granaries.

Barley is subject to the attacks of a nondescript insect, undoubledly akin to the wheat flies, though from its mode of depositing its eggs, it would not seem to be identical with them. The insect is a small worm, and is found within the stalk, generally near the second joint. The effect of the worm becomes visible when the plant is some ten inches high, it becoming stunted and yellow, and the stalk discolored and full of hard protuberances containing the insect. The best descriptions of this insect may be found in the New-England Farmer, Volumes, 8, 9, 10. It is supposed these insects were imported in a cargo of barley from Bremen, which was sold and sown in several towns in the eastern part of Massachusetts in 1825. Happily the fears then entertained of their spread have not been realized, and in the greatest barley district of the United States, the central counties of New-York, it is entirely unknown. We have seen one or two instances of worms in the ear of barley, different from the wheat worm in appearance. We have observed on barley a small light yellow midge or fly, with a retractive ovipositor, resembling in some respects the parent fly of the wheat maggot, and not so large as that of the wheat caterpillar. It is possible the worm observed may be the progeny of this fly; but until more extensive mischief is produced, we may expect the barley worms will excite little attention.

Meadows are sometimes much damaged by the larvæ of the May bug, *Melolontha vulgaris*. This grub, which is of a dirty white color with reddish head, is, before passing into the pupa state, about one and a half inches long, and passes three or four years in this state, feeding on the roots of plants during the summer, and passing the winter deeper in the earth in a state of torpidity. The perfect insect emerges in the night, lives a few days, propagates its species, and dies. We have seen many yards square of old meadow in a dry season, with the roots so completely severed by this worm, that the turf might be rolled up like a carpet; and where hogs are observed to be very fond of rooting in upland meadows, the presence of this grub may be suspected. The grub will feed on almost any cultivated plant, to the roots of which it has access, and frequently injures wheat and other grain in this way. The grub is rarely troublesome on farms where a rotation of crops is pursued, and this points out the best method for exterminating them. Ploughing is the true remedy for the grub; but, where this is inconvenient, and they become formidable in number, recourse has been had to kindling bright fires on the evening when the beetle appears in the spring or early summer, as they are strongly attracted by light, and in this way great multitudes perish.

All root crops cultivated in the field, are more or less subject to the attacks of insects. Thus the potato has no less than six or seven beetles that feed on its leaves, but rarely appear in such numbers as to produce serious mischief. Of these, the most common are the Black Cantharis, *Cantharis atrata*, the *Cantharis cinerea*, or Ash-colored Cantharis; and the *Cantharis vittata*, or the Potato Fly, as it is frequently called. The black cantharis is sometimes so abundant as to render the taking of it for sale to the apothecaries as a blistering fly, profitable. By shaking the vines over a broad tin pan they are easily captured, when they must be emptied into a covered pail to prevent their escape. They are killed by throwing them into scalding water for two minutes, when they are spread on millinet or paper to dry, and are then ready for medical purposes. When the ash-colored cantharis is rubbed, it appears black, but they are not considered as valuable as the former kind.

The *carrot*, in field culture, is liable to be attacked by a worm called by some the parsley worm, from its preferring that plant to most others. They are known by their thrusting forth from the first segment of the body a pair of soft yellow horns, united at the bottom like the letter Y, and exhaling a powerful disagreeable odor. This is done only when they are disturbed, and appears intended as a means of defence. This larvæ is the progeny of the butterfly, *Papilio asterias*, one of the finest of our butterflies. All caterpillars are best destroyed by picking and killing them by hand, when scattered, or gathering them and crushing, when collected in masses. The same rule applies to the worms and plant lice that sometimes appear in such numbers on field turnips. A few hours attention daily to a field crop, may not only preserve that, but by preventing the transformation, and the formation of the perfect insect, avoid much labor and loss from them hereafter.

(*To be Continued.*)

From the New Genesee Farmer.

Wheat Culture.

Wheatland Farming.

The following article by our esteemed friend, William Garbutt of Wheatland, we are sure will be read with interest and profit by many of our readers, and will prove of more value to some, than many times the cost of this paper for a year. Mr. Garbutt, as is well known, is one of the oldest and best practical farmers in the purely wheat region of Western New York. His style of writing is peculiarly characteristic, evincing deep thought, as well as great practical experience. He is more used to wielding the plow than the pen, and depends more on his own observation and experience for guidance in his busines, than on the theories and speculations of others; although he is not dogmatical, like many possessed of less knowledge, nor is he unwilling to be taught even through the columns of an agricultural paper. On the contrary, he has always been a warm friend of such publications, and as past volumes of the Genesee Farmer will show, he has ever been willing to communicate the results of his experience, whenever he thought his brother farmers might be benefitted thereby.

The opinions set forth in the following article are entitled to the highest consideration, however widely they may differ from those of other intelligent farmers. Mr. Garbutt makes no claim to infallibility, however, and he does not wish or expect every farmer to adopt his opinions. His object is to elicit experiments and discussion, and induce other farmers to give publicity to their opinions on questions relating to their profession.

We think we discover one or two slight mistakes in his article—particularly in reference to the manufacture of manure; but we pass the matter for the present, in hopes that some other experienced practitioners will send us their views on these subjects. B.

Wheat with Sheep and Clover.

Mr. Bateham—I am glad to find the discussion of the best method of raising wheat, and the most profitable system of farming introduced into the Genesee Farmer. The interchange of views and opinions by practical farmers is the surest way to arrive at the truth, and believing it to be the duty of every one to contribute something to the general stock, I will take the liberty to give my views on the subject.

I differ from those who believe that plowing in clover and sowing the ground alternately with wheat, is the most profitable course of farming, or the best method of raising wheat. I consider pasturing the clover two seasons with sheep more profitable to the farmer, more enriching to the soil, and more beneficial to the wheat crop, than plowing it under. I will endeavor to give my reason for this opinion, and leave it for the cultivators of the soil, for the next ten years to decide whether my views are correct.

It is well known to many farmers that dried vegetables, such as hay, straw and stalks, make more and much richer manure by being fed to animals; to say nothing of the profit of keeping the stock. But green vegetables, and particularly clover, are not much improved (as manure) by feeding, as they do not require the heat, moisture, nor the same amount of fermentation to prepare them for the food of plants. And it is the economy of nature that nothing is lost; vegetables are the food for animals and the breath and droppings of animals are the food of growing plants;—But to my wheat growing.

Let us suppose that A. B. and C. have each 100 acres of good land, in equal condition for producing wheat, together with sufficient grass land for keeping the teams and other necessary stock of the farm. Now suppose A. divides his land into two equal fields of 50 acres each, and has one in wheat and the other in clover each year. The clover he plows under and sows with wheat annually and he has 50 acres of wheat to harvest. If he pursue this course for ten years, his wheat crop I believe will not average over 20 bushels per acre—but call it 22 and it be 1100 bushels, from which deduct 50 bushels for seed and he will have 1050 bushels for market. Call this 6s. 6d. per bushel, which is as high as we can calculate for an average, and it will make $853,12 yearly income for A.

B. divides his land into three equal parts of 33⅓ acres each; one of which he has in wheat, the other two in clover each year. He also keeps 450 sheep; these he pastures on his fallow till it is plowed, instead of plowing in the clover as A. does. The third field he divides with a temporary fence, and takes 20 acres of it for hay, which, together with his chaff and straw will be sufficient for his sheep; and the 13 acres not mown, together with the fall feed on the meadow and stubble, will afford ample pasture for the sheep after the fallow is plowed. B. having 16¾ acres less wheat to sow and harvest his expenses of labor will be very little more than A's. His sheep will make his hay and straw into excellent manure, which he must put on to the 20 acres of mowed land, and this is to be his next year's fallow.

B's 33¾ acres of wheat will average for ten years under the sheep system, 27 bushels per acre—or 900 bushels—from which take 33¾ for seed, and he has 866¾ for market; this, at the price before named, will give him $704,-16 for wheat. His 150 sheep will yield in wool and increase of flock, $1,50 each, or $225, in all, making the whole amount of B's income, $929, 16.

C divides his land into ten acre lots, with several of the division fences temporary, so as to be removed at pleasure. He will have annually 30 acres in wheat, 10 in barley, 10 hay, 20 pasture, and 10 in hoe crops, of which 2 acres should be potatoes, 3 wurtzels, and five corn. He will keep two hundred sheep (which he can do, and keep them well) and breeding sows sufficient to raise 20 hogs annually for market. The hogs and sheep will make all the stalks, hay, and straw into valuable manure, which will be much improved by feeding the sheep with wurtzels. The three acres of wurtzels, five of corn stalks, ten of hay, and forty of straw, will winter 200 sheep well; and the fallow, together with the after feed on the mowed ground and stable fields, and twenty acres of pasture, will be abundant for their summer keeping.

The 10 acres of mown land must be well manured and plowed in the fall, for the next spring's hoe crops, the 10 acres previously hoed must be plowed in the fall for barley; and as soon as possible after the barley is off, give a shallow plowing and thorough harrowing, so as to vegetate all the barley and other seeds on the surface, then give it a light dressing of well rotted manure, plow it well, and sow it with wheat. In this way, C's thirty acres of wheat, will be, ten after barley, and twenty summer fallow, on which his sheep were pastured till plowed. The 20 on summer fallow, will average 30 bushels per acre for 10 years, owing to the increased quantity and the quality of manure he will annually apply; and the 10 after barley, will be as good as A's 22 bushels per acre—making the whole amount of wheat, deducting 30 bushels for seed, 790 bushels, worth, at the price stated, $641,89. Then the ten acres of barley will average 40 bushels per acre; (this has been my average yield for ten years past) deduct 20 bushels for seed, and the remainder, at 3s. 6d., per bushel, will be worth $166,63. The 3 acres of corn, highly manured, will yield 50 bushels per acre; deduct 1 for seed, and keep 30 to feed the sows and young pigs, and the remainder at 3s. 6d. per bushel, will be $95,81.

The wurtzels feed to the sheep and hogs in winter; the two acres of potatoes, with the thirty bushels of corn, and the stubbles, &c. will keep the sows and 20 hogs raised for the market, until they are a year old, when they will average 200 pounds each on foot, at 2½ cents per pound, which will be $100. The sheep at $1½ each, will be $300. The whole together making an income for C of $1304,32. But he will have extra expenses in cultivating his land—he must employ three extra laborers; one for the year, at $120, and two for seven months, at $12 per month—$168; but these men will do each one month's work in harvesting and thrashing, which will be worth $18 per month; if we deduct this from their wages, it will leave $234, as the extra expense of cultivating C's land. Deduct this from the proceeds, and his income will be $1070,32.

Each of these three farmers must use alike of plaster—say eight tons per year; five on their land and three on their manure in the yard. Their wheat must all be seeded each year with clover, and B, and C, must add three qts. of timothy per acre. But their expense in seeding will not be greater than A, owing to his having more acres to seed. If B and C do their duty in making, saving and applying their manures, B's ground will improve, and his crops increase over A's, and C's over B's more than in the foregoing estimated proportions.

Recapitulation.

Yearly income of A from 100 acres is		$853 12
"	B "	929 16
"	C "	1070 32

Now, fellow cultivators, test this matter for yourselves, and let your experience settle the question. But *do not forget* that C must pay particular attention to his stock and *manure*—especially the sheep in winter.

Wm. Garbutt.

Wheatland, Aug. 1844.

New York Agricultural Institute.

The object of this Institute is to afford facilities to those desirous of entering upon a course of study preparatory to farming, the advantage of which has been made evident by the researches of a large number of scientific men and experienced agriculturists.

The necessity for an improved system of husbandry is apparent from the decreasing harvests of many parts of the sea-board States. The present reckless tillage of too many of our farmers, reduces the finest lands to sterility by a succession of exhausting crops; and emigration is the consequence. These evils, unless speedily checked, will destroy our prosperity; for the cultivation of grain is becoming unprofitable, and to great an importation of food from the west would in a short time absorb the resources of the wealthiest eastern States. The only effectual remedy is the improvement of cultivation; not a mere application of tons of manure, and shiploads of lime, per acre, *but their economical use.* Common manuring has been practised from the remotest antiquity, and good crops have been obtained; *but it is the judicious addition of such substances as are necessary to the soil, in proper quantity, with a view of attaining a definite purpose, that constitutes professional agriculture.*

To individuals, this system will prove a source of wealth even on ordinary lands. Less capital is required to hold the same surface, because every acre yields a revenue; two or three crops can be taken annually, where one is now scarcely attainable; the heavy expenses of manuring and keeping stock are reduced to a trifle; and machines can be made to perform much of the work now in the hands of laborers, sustained at a heavy expense. In maintaining sheep and cattle, the use of food properly prepared and selected for its chemical value, will reduce the charges to the lowest point, while the development of the animals is better secured.

By requiring a preliminary course of studies, and introducing the exactness of science into agriculture, it will rise to the dignity of a profession, and be regarded as a suitable calling for persons of liberal education, instead of an obscure art. Numbers of talented young men, who, after leaving college, see no other roads to distinction or wealth but medicine, engineering, law, or divinity, will direct their energies towards the improvement of farming; a change not less serviceable to the art than advantageous to themselves; whereby they exchange the uncertainty of competition in employments already overstocked for the certainty of systematic agriculture. The studies of the institute are agriculture, chemistry, analysis, and physiology; and measures have been taken to introduce a course of instruction in agricultural mechanics and rural architecture. These are distinct classes, so that students can attend any separately.

In *Agriculture* will be taught all facts in chemistry, geology, and botany, useful to the farmer—the drainage, and preparation of soils—the collection, storage, and preservation of provender and fruits—the feeding and improvement of stock—management of orchards, vineyards, &c.—the preparation and *economy* of manures, both organic and mineral, with their action and causes of success or failure. In short, all the topics embraced in the courses given by Professors of Agriculture in European colleges, will be discussed.

Chemistry, as an abstract science, is taught by Professor Draper in the University.

Anatomy and *Physiology* by Professor Pattison. This course is directed more especially to an examination of the structure and functions of the human body, and may be attended with great profit to the student.

Analysis of Soils, the ashes of plants, and manures, will be conducted by the students under the direction of the subscriber, with such assistance as may be required.

The city of New York offers numerous advantages in carrying out the objects of the Institute—the facility of access—the high cultivation of many farms, nurseries, &c., in the vicinity—the conservatories and market gardens—the large collections of farming implements—the numerous artificial and mineral manures that can be examined—constitute it the best locality in the United States. Good board and lodging near the University can be had for from $2,50 to $3,00 per week.

The *Institute* is situated in the University of New York. It opens the first Monday of November, and continues in session until the 1st of March. This period has been chosen for the accommodation of those engaged in farming. Fees for the course on Agriculture, $20; for Analysis, $30; for both, $40. The courses on Agriculture and Analysis are conducted by

D. P. Gardner, M. D.
Formerly Prof. of Chemistry, &c., in Hampden, Sidney College, Va.

For further information address, post-paid, Dr. Gardner, 412 Fourth street, New York.

Points of a Good Milch Cow.—The following is from a report of the Guernsey Agricultural Society.

1. Purity of breed and qualities of the dam for yielding rich and yellow butter.

2. Small head, large and bright eyes, small muzzle, small ears, orange color within.

3. Staight back from the shoulders to the tail, and chest wide.

4. A fine and loose skin, with soft and short hair.

5. Sides well rounded, flank small between the side and haunch, tail fine

9. Fore-legs straight and well proportioned, hind-legs broad above the knee; fine and clean below; hoofs small; legs should not cross in walking.

7. Udder large, and the teats large, and springing from the four corners of the udder; milk-vein large and well-defined.

Fruit.—We have never known the trees in this vicinity so heavily laden as at the present time. There are but few peaches, but of apples, pears and plums, the supply is very large. Plums are bearing beyond all precedent, and apples were never better. The fruit is ripening, too, fairer, and a fortnight earlier than usual, and the market is abundantly supplied.—*Newburyport Herald.*

THE AMERICAN FARMER.

PUBLISHED BY SAMUEL SANDS.

THE AMERICAN FARMER.

The Proprietor of the "American Farmer" establishment, expecting shortly to be engaged in the publication of a daily journal in the city of Baltimore, to which he desires to devote as much of his time as possible, would dispose of this establishment on liberal terms, if an immediate application be made. The character of the "Farmer" is too well known to require comment—it is the oldest Agricultural journal published in this country, being now in its 26th year. The central situation of Baltimore renders it a peculiarly advantageous location for a publication of the kind, and in the hands of a person who had a taste for agricultural pursuits, and a necessary talent for conducting the business department thereof, it might be made to be extensively useful and profitable.

The services of the gentleman at present and for several years past engaged in the editorial department, could be secured, if agreeable to the parties concerned.

☞The patrons of the "Farmer" are assued, that in case a disposition is not made of it, no interruption will be made in its regular publication. Address, if by letter, post paid, SAML. SANDS, Baltimore, Md.

☞ *Our exchanges will oblige us by noticing the above.*

DROUGHT.—We hear from almost every quarter, that the drought has seriously affected the corn crop.

SOWING WHEAT.—Let all wheat growers get their ground ready without delay and sow early.

GUANO.

From a profound sense of the immense value of this substance as a fertilizer of the soil, we will again venture upon the task of calling the attention of our Agricultural friends to the subject of introducing its use on their farms the present fall and coming spring. We feel satisfied that it is not only a most powerful, but if properly used, as permanent a manure as any other whose properties are those of nutrition, and probably the most so. If we understand its compotent parts, and we think we do, besides other salts which are valuable in themselves, it contains a large portion of ammonia, in various forms—substances, which the most intelligent chemists believe largely enter into what may be termed the nutritious food of plants, or that part which contributes most to the production of the fruit—nor is the quantity of the phosphate of lime, which it contains, otherwise than highly important, in the agency which it exerts in the formation of the straw, serving to impart to it, as it does, the capacity of maintaining an erect position, by the power it possesses of dissolving the silica of the soil, and forming the silicate of potash.

It has been remarked, that *wheat* which has received a dressing of *Guano*, besides being increased largely in its yield of *berry*, while the straw itself may not necessarily increase in grossness, has the competency imparted to it of maintaining its upright position, and consequently not so subject to being lodged, and hence a very important advantage arises in the facility of harvesting it.

Another resulting benefit, is this, that Guano has a natural tendency to hasten the ripening of the plant, a consideration of considerable moment in a climate like ours, where from the peculiar state of the atmosphere at the ordinary period of ripening, the wheat crop is so generally subject to rust.

An opinion has, to some extent, prevailed that the effects of *Guano* are evanescent, and may be considered as not to possess any thing like a permanency of character, and therefore should be annually applied. This opinion, we presume, arises from the circumstance that it abounds in ammonia, which is known to be a volatile salt; but if it be considered that the ammonia found in Guano, is but seldom so found in the carbonate form, but in the form of *urate*, which is with difficulty dissolved in water, and does not escape readily through the action of the sun and air, unless incorporated with unslacked lime, or that which may have been recently slacked—but decomposes slowly, thus giving out its nutritive properties in gradual portions to the crop as its roots may expand and require sustenance, it must be conceded that of all the elementary manures, it should be classed among the most permanent—and that, at all events it is fully equal to the supply of all the demands required by a rotation of crops, and we apprehend that there is no one manure, belonging to that class, which will last for a longer series of years.

But if the *urate* of ammonia found to abound so largely in Guano, did actually yield to the speedy influence of the sun and air, that propensity might very readily be counteracted by the admixture with it of either ground Plaster or ground Charcoal, as both of these agents are known to possess an affinity for ammonia, to have the power of absorbing it in its most volatile state, assimilating with it, and retaining it until compelled by the volatile power of the roots of the plants to give it up for their support.

But casting aside all these chemical speculations—and to come down to the practical operations of the farm and draw our conclusions from the actual experience of agriculturists in the use of Guano, we are justified in affirming that it is as permanent a manure as any other of its specific character. All the experiments tried both here and in Europe sustain us in this view of its properties. It may, perhaps, without hazard be said, that the experience of this country is more ancient than that of England, for it is twenty years since it was used on the Eastern peninsula of this State by the late Governor Lloyd, to a small extent, to be sure, but sufficient, however, to test its virtues. Having been presented with a barrel he applied it to his corn crop, and we were informed by an esteemed friend from Delaware, who was on a visit to one of his sons two years since, that he was shewn the portion of the field to which it had been applied, and was informed that even at that day, its effects were visible, and that for a long series of years, the difference between the guanoed and unguanoed parts of the field was so manifest as to be visible in the growing crops for a long distance off.

In Peru, where the best Guano is obtained, lands, which otherwise would be sterile, are by its use made to yield abundantly. There, owing to the long continued droughts, or indeed, it may more properly be said, owing to the total absence of rain during the greater part of the growing season, it is customary to use the Guano either in solution, or to irrigate the fields through the facilities afforded by the streams of water soon after applying the Guano, and to repeat that operation. Here, such labor is not necessary, as our frequent rains would enable us to dispense with both appliances; so that all which would be necessary would be to harrow the Guano into the soil after the seed may be sown, and await the coming of rain to dissolve it and diffuse a supply to the growing plants.

Of the comparative cheapness of Guano over any other nutritive manure, we apprehend there can be no question. Indeed we think it would be as cheap as stable manure, though a farmer might gather the latter for nothing if he had half a mile to haul it. And there is one circumstance connected with the use of Guano which should commend it to general use. A single hand could manure three or four acres a day, where it would take many hands and several teams to go over the same quantity of land in the same time. Nor is it a consideration of trivial moment that Guano is exempt from weeds, those pests which so mar the culturists by the decrease of crops and the imposition of labor. In applying Guano to his soil he puts there that which enriches his lands, increases its products, but adds not to the quantity of weeds. So that, let Guano be viewed in whatsoever light it may, its economy, its utility, its efficiency is so manifestly apparent as to commend its use to all judicious farmers and planters.

LIST OF CATTLE,

From the Herd of

JAMES GOWEN, ESQ., MOUNT AIRY,

To be sold at Public Sale, by WOLBERT & HERKNESS, *on Thursday, 26th September, 1844, at 11 o'clock precisely, at the Agricultural Society's Exhibition ground, Rising Sun village, on the Germantown road, three miles from the City of Philadelphia.*

No. 1. WALNUT.—(Imported) Roan, calved 7th July, 1837.

No. 2. SIR RODERICK.—Roan, calved 19th November, 1843.

No. 3. CLEOPATRA.—Roan, Calved 1st May, 1839.

No. 4. BESSY BELL.—Light Roan, Calved, 27th March, 1843.

No. 5. FAVORITE.—Roan, calved, July 30th, 1844.

No. 6. VICTORIA.—White, calved September, 1839.

No. 7. DAPHNE.—Roan, calved, October 20th, 1840.

No. 8. YOUNG NELL.—Roan, calved, December, 1841.

No. 9. MISS MODEL.—Roan, calved, 30th March, 1842.

No. 10. JULIA.—Roan, Calved, July 15th, 1844.

No. 11. FAIRY.—Red and White, calved, March 18th, 1844.

No. 12. AUGUSTA.—Roan, calved, August 3d, 1834.

No. 13. VICTORINA.—Red, calved, April 23d, 1842.

No. 14. DUCHESS.—Light Roan, Calved, 15th January, 1843.

No. 15. CHERRY.—Red with a little White, calved, 26th November, 1842.

No. 16. FAIR STAR.—Red, with star in forehead, calved, 1st December, 1842.

No. 17. MISS MEADOWS.—Red and White, 23d December, 1842.

No. 18. MILK MAID.—Red and White, calved, 7th of January, 1842.

No. 19. BUTTER CUP.—Red and white, calved, 19th March, 1843.

No. 20. MISS DALE.—Red and white, calved, 4th August, 1843.

No. 21. CAULIFLOWER.—Red and white, calved, 5th November, 1843.

No. 22. FANNY.—Roan, calved, 6th August, 1844.

No. 23. ROSE.—Red, calved, 11th August, 1844.

No. 24. BLOSSOM.—White and Red, calved 25th March, 1841.

No. 25. WOOD NYMPH.—Red, calved in 1839.

No. 26. LADY MILFORD.—Red, purchased of Mr. William Ward, a reputed judge of cattle, 1842, stated to be then 4 years old.

No. 27. PIZARRO.—White, red ears, calved 12th June, 1843.

No. 28. CHORLEY.—White, calved 8th February, 1844.

No. 29. HENRY CLAY.—Red and white, calved, June 26th, 1844.

No. 30. LOGAN.—White, red ears, calved 20th July 1844.

No. 31. COLOSTRA THE YOUNGER.—White, calved, July, 1841.

No. 32. LEANDER.—Beautiful red and white, calved, 1839.

No. 33. DAIRY MAID.—Roan, calved, 1835.

Twin Calves of Dairy Daid.

No. 34. VALENTINE.—White, calved, 31st July, 1844.

No. 35. ORSON.—Roan, calved, 31st July, 1844.

SIRE—Colostra the younger, by Wolbert's Imported Colostra.

No. 36. RUBY.—Young Devon, bred by Mr. William Ward of Milford, Susquehanna county, Pa., recommended very highly by Mr. Ward as being of a good milking strain—she has had one calf, was served by Colostra the younger, 9th July.

SWINE.—Several young Boars and Sows of the Lincoln, Hampshire, Berkshire, and Chester county Breeds. To be arranged and designated at the time of Sale.

Tomato Catsup.—To a gallon skinned tomatoes add 4 table-spoonfuls of salt, 4 do black pepper, half a spoonful allspice, 8 red peppers, and 3 spoonfuls mustard. All these ingredients must be ground fine, and simmered slowly in sharp vinegar for 3 or 4 hours. As much vinegar is to be used as to leave half a gallon of liquor when the process is over. Strain through a wire sieve and bottle and seal from the air. This may be used in two weeks, but improves by age, and will keep several years.—*U. S. Receipt Book.*

From the New Genesee Farmer.

Guano Manure.

Editors of the New Genesee Farmer—As some of our agriculturists are making experiments with Guano, it is highly important that they should have some means of judging of its quality. In England, villainy has already busied itself in producing a spurious article, that goes ahead of the far-famed wooden nutmegs.

Guano is the dung (or more properly, the urine) of sea birds. It is brought from the coast and islands of South America and Africa. It has been found on the coast of Scotland, and probably will be on our sea board and lakes.

Of the four specimens I have, three are from South America and one from Africa. They are brown powders, similar to madder, with rather an unpleasant odour; in one case, like that of the goat; in another, somewhat like fiddle strings: the others have a musty smell.

The great value of this manure depends on the quantity of ammonia and phosphoric acid present. To judge of the quantity of ammonia, take a tea-spoon full of the powder, and mix it with the same quantity of slacked quick lime: the ammoniacal gas will be freely liberated immediately.

To ascertain the quantity of phosphoric and oxalic acids present, weigh one hundred grains of the Guano, pour on it half a pint of rain water, and add two tea-spoonfulls of muriatic acid, let it stand, with occasional stirring, for twenty-four hours. Then filter the solution, and add to it liquid ammonia, until it has a distinct ammoniacal odour; this will cause a white precipitate: then pour in a solution of muriate of lime as long as it produces a precipitate.* The more there is of this precipitate, the more valuable is the sample.

Examination of the Four Specimens by this Test.

The first two were furnished by Messrs. Wirgman & Newman, No. 44, Front-st. N. Y.

No. 1		yielded grains,	43
" 2	damaged by sea-water,	"	36
" 3	from Boston,	"	46
" 4	African, G. C. Thorburn, N. Y.		37

So the value of these several specimens may be considered, the one to the other, as the weights of their several precipitates.

The salts existing in Guano, are nearly identical with those in human urine. One pound of Guano, however, contains the same quantity of salts, as ten pounds of urine.

There are several modes of applying this substance:—one is, to mix it with soil, and scatter it like plaster, at the rate of one or two hundred pounds to the acre. Another is, to mix it with water. The plan that I would suggest for trial is, to take five pounds of Guano, and a quart of muriatic acid and a barrel of water; mix them and let it stand twenty-four hours, with occasional stirring. This will give a solution of most of the elements in their most active state. It will be of one fifth of the strength of urine. The solution may be applied to the plants, whenever it may be thought best.

I have made a minute analysis of Guano, that confirms that of Volcked, as given in Liebig's Agricultural Chemistry, Ed. 4, p. 201, but it is probably too technical for the general reader. Respectfully, Yours, &c.,

CHARLES H. RAYMOND, M. D.,
Lecturer on Agricul. Chemistry.

Buffalo, Aug. 20, 1844.

Remarks—I have known Dr. Raymond for many years as one of the best chemists in the state, and used often to urge him to turn his attention to agricultural chemistry. I am glad to see by the above, that he has taken hold of the subject in earnest. Would it not be a good plan to get up classes in the various towns, and invite the Dr. to deliver a course of lectures on the subject of agricultural chemistry? His charges will be moderate, and I will engage that his lectures and experiments will be most interesting. I really hope so good an opportunity to disseminate accurate and valuable information on so important a subject, will not be lost. Will not Mr. Wadsworth start a class at his delightful village, and thus set the ball in motion.

Any person reading the above will see that the Dr. understands his business. I believe it is the first and only directions that have been published, to ascertain the value of this important manure.

A very important fact is disclosed by Dr. Raymond's researches, namely: that ten pounds of human urine contains as much of the valuable salts, as one pound of the Guano. How easy it would be, on every farm, to save a great amount of valuable manure, with little or no expense.—Save all the urine of man and beast, and it will not be necessary for the farmer to pay 5cts. per lb. for Guano, to fertelize his ground.

Again I say, call out the Dr., and I hope he will be kept in motion throughout the season.

T. C. Peters.

Ashes as Manure.

As the ashes of the different sorts of fuel, are of a very diversified composition—that is, as one sort contains much of potash, and another none at all, and so on—it follows that their value as manures will be very different. This is a fact borne out by experience. Several sorts of ashes, as they contain no substance which decomposes the humus or other ingredients of the soil, act merely as food for the crops, whilst others act as solvents, as well as by nourishing plants by their compotent part. By knowing the chemical ingredients of ashes. we can best determine their value as manures. It would take up too much space to treat of all sorts of ashes used in agriculture: some of the most common will suffice for our purpose:—

1. *Ashes of the Red Beach.*—100,000 parts consist of—

5,520	parts of	silica,
2,330	"	alumina,
3,770	"	oxide of iron,
3,850	"	oxide of manganese,t
25,000	"	lime,
5,000	"	magnesia,
22,110	"	potash, partly combined with silica,
3,320	"	soda,
7,640	"	sulphuric acid, combined with potash and lime,
5,620	"	phosph. acid, combined with lime,
1,840	"	chlorine, combined with sodium,
14,000	"	carbonic acid, combined with potash.
100,000		

Fresh Beech-wood ashes contain always less carbonic acid than is here stated, as lime and magnesia will (if the ashes are exposed to the air) attract the carbonic acid, and combine into carbonic salts; whence it follows that the per centage of this substance will be different if the same sort of ashes be examined in a fresh state, and after being exposed to the air.

2. *Ashes of Oak.*—100,000 parts consist of—

26,947	parts of	silica,
8,140	"	alumina, oxide of iron, oxide of manganese,
17,380	"	lime,
1,442	"	alumina,
16,200	"	potash, partly comb'd with silica,
6,730	"	soda, do
3,356	"	sulphuric acid, combined with potash and lime,
1,920	"	phosph. acid, combined with lime,
2,408	"	chlorine, combined with sodium,
15,468	"	carbonic acid, combined with potash, lime, and alumina.
100,000		

3. *Ashes of the Pine.*—100,000 parts consist of—

6,503	parts of	silica,
17,030	"	alumina, oxide of iron, oxide of manganese,
23,182	"	lime,
5,016	"	magnesia,
2,190	"	potash, partly united with silica,
2,220	"	soda,
2,228	"	sulphuric acid comb'd with lime,
2,748	"	phosphoric acid, do.
2,300	"	chloride of sodium,
36,405	"	carbonates of lime, potash, and magnesia.
100,000		

All sorts of ashes formed under a high degree of heat, contain somewhat less potash, than those formed under a less intense heat; and this should be taken into account in purchasing ashes, as the former will act less powerfully.

Looking at the foregoing analyses, it will be evident that the ashes of Beech must be the most powerful, as it is the richest in lime, alumina, potash, sulphuric and phosphoric acids. Experience has confirmed this.—*Prof. Sprengel.*

Wages of Farm Laborers in England.

The wages (per year) paid in the county of Northumberland, as given by several gentlemen familiar with the subject, to the parliamentary committee, are as follows:

First Example.

36 bushels of oats,
24 " barley,
12 " peas,
3 " wheat,
3 " rye,
36 to 40 " potatoes,
24 pounds of wool,
A cow's keep for a year,
Cottage and garden,
Coals from the pit,
£4 in cash.

Second Example.

10 bushels of wheat,
30 " oats,
10 " barley,
10 " rye,
10 " peas,
A cow's keep for a year,
800 yards of land for potatoes,
Cottage and garden,
Coals,
£3 10s. in cash,
2 bush. barley in lieu of hens.

Third Example.

36 bushels of oats,
24 " barley,
12 " peas,
6 " wheat,
1000 yards of land for potatoes,
A cow's keep,
House and garden,
Coals,
£5 in cash.

The Scotch laborers seemed to me, from a very limited observation, strongly attached to their employers. On one farm where I had the pleasure of visiting, one of the laborers had been in the employ of the same family forty years, and another sixty; to each of whom, although their labor now was of little value, the farmer continued the same rate of wages which they had in early life. This, indeed, would seem to be no more than just, that the honest laborer, whose life had been spent in the service of another man, should not be turned adrift in his old age; but, alas, how rare is justice!

The condition of the laborers in this country is a subject of such deep concern to the community, on the ground of pecuniary profit, as well as philanthropy and justice, that I shall again revert to it. The common wages of farm labor, vary for men, from five shillings to twelve shillings per week; but I think a fair average would be eight to nine shillings sterling. A shilling may be reckoned at twenty-four cents, so that the monthly wages for a man may be put down at eight dollars and sixty-four cents. This is the whole, where labor is paid for in money, excepting, as a matter of kindness, the farmer generally brings the coals for his laborer. I am not yet able to speak of the condition of things in Scotland, but it is constantly boasted that the education of the Scotch laborer is always provided for, and that, in point of instruction, they are far superior to the English. This remains for me to see.—*Colman's First Report on European Agriculture.*

Artificial Fish Ponds.—A writer in the Albany Cultivator, who has lately visited Mr. Van Buren's farm at Kinderhook, gives a glowing account of the princely improvements on the grounds and gardens.—Among the objects which give beauty and interest to the grounds, are too artificial ponds in the garden. They were easily made by constructing dams across a little brook originating from springs on the premises. Soon after they were made, (three years ago) some fish were put into them and they are now so well stocked with trout, pickerel and perch, that Mr. Van Buren assures us they will afford an abundant supply for his table. This is a matter well worthy of consideration. There are many situations where such ponds may be made, and with a trifling expense, the luxury of catching and eating a fine trout or pickerel may be had at any time.

Foreign Extracts.

We copy the subjoined from the Albany Cultivator:

Agricultural College in Eegland.—From our English papers we perceive that such progress has been made, that the establishment of this institution is considered certain. The Society, it is said, has now resolved itself into a tangible shape, and will immediately commence operations. *Port Farm*, consisting of about 400 acres, within one mile of Cirencester, the property of the Right Hon. Earl Bathurst, has been fixed on as the site for the example farm.

Sowing Machine.—T. Sullivan in his "Sketches of East Lothian Husbandry," published in the Agricultural Gazette, thus describes a machine for sowing grain and grass seed.—"A machine very extensively used in this country, is that for sowing corn and grass seeds, broadcast. Its great recommendations are, the regularity with which it distributes the seed, the saving thereby effected, and in remedying the inconvenience and loss of seed arising from sowing with the hand during high winds. The machine consists of an oblong box, 18 to 19 feet in length supported upon a frame-work on three wheels. A revolving horizontal spindle, with pinions in the inside of the box, scatters the seed. Clover and grass seeds are now rarely sown by hand, this machine being peculiarly adapted for sowing such small seeds, and obviating the difficulty always experienced in distributing the small allowance usually given per acre, especially during winds, when from the lightness of the seeds, they are liable to be blown away." Would not such a machine be exceedingly useful in this country?

Experiment with Charcoal and Salt.—The Earl of Essex gives an account in the Agricultural Gazette, of an experiment made by him with charcoal, and charcoal combined with salt, applied to turnep-seed at the time of sowing. In the first case, the seed was mixed with twelve times its bulk of charcoal dust. In the second case, the seed was mixed with five times its weight of salt, and nine bulks of charcoal; and in the third case, the seed was put in alone. The ground was very dry and parched, but the seed where the charcoal, and the charcoal and salt, was used, came up in five days. The plants where the clear charcoal was used, however, grew much the most rapid—where nothing was used, the plants came up badly, and after they were up, did not grow near so fast as the others. The Earl also tried the same application of charcoal with the seed of the Belgian carrot, which vegetated several days sooner than carrot seed usually does, even under favorable circumstances. He also sowed one row of turnips with double the quantity of salt above mentioned, which totally destroyed the seed. Nothing but the substances named were used, and the Earl thinks that the quick vegetation and rapid growth, was attributable to them.

MUCK.

"*Manure is the Farmer's Mine of Wealth.*"

There are but few words in our farmers vocabulary which have a greater variety of significations, than that which we have placed at the head of this article. By some it is applied exclusively to dead vegetable matters—such as leaves and ligneous substances in almost every state of decomposition; while by others it is applied to the various kinds of *peat*, without reference to its different degrees of solidity and firmness; while by a third class the term is made to include every description of substance taken from swamps and low places,—such as mud, mineral deposits from circumjacent hills, and the almost endless varieties of viscid and tenacious clays, which, receiving their distinctive characteristics from the presence of mineral detrita, and the coloring substances of metalic organisms, are highly beneficial in their immediate action, and constitutional operation on the soil. The value of muck as a fertilizing agent, is always in the precise ratio of the quantity of vegetable matter contained in it; all foreign matters included in the mass, serving only to increase the *bulk* without adding any per centage whatever to the fructifying and vitalizing energies of the mass as a stimulant of vegetable life. In order that we may be able rationally to discriminate in this matter, the application of chemical tests is indispensable. For instance, if we chance upon a deposite of muck in which there is to all appearance much fibrous substance, with little of a mineral nature, or perhaps none, we conclude at once that it is an article of value; but chemistry, frequently in such instances, demonstrates the presence of other principles no less injurious, indeed, and which may ultimately, as actual predisposing causes of sterility and unproductiveness, be even more injurious, and of more fatal consequence both to the crop and the soil We have often heard the remark advanced by farmers, that the muck applied to their lands, was no apparent benefit unless previously saturated with the water from the manure heap. Applied directly, in its native and unprepared state, its value as a manure, is necessarily greatly abridged, and it is indeed only by the assistance of chemistry that it can be made capable of producing on vegetation, immediately, beneficial results. In all muck there is present more or less of carbonic acid;—this must be neutralized by exposure to atmospheric agents, or by the wonderful action of mineral or vegetable alkalies,—ashes or lime. Submitted to the action of the latter agents, it is immediately rendered fit for use; its value however still depending in a great measure upon the quantity of vegetable matter contained in it, and its capacity of exciting in the soil that exquisite play of chemical affinities or attractions upon which, more than upon any other circumstance, depends the development and healthy maturation of the various orders of vegetable life.—*Maine Cult.*

New Mode of Confining Buds.

Mr. Editor—Having noticed in some paper, an inquiry whether there could not be some better method in inoculating trees, of confining the bud in, than the usual method of tying it in with a string, I send you the result of my experiments last season, thinking it might be useful to those who inoculate trees. Presuming that their might be some better, and more expeditious way than the usual method of confining the buds in by winding a string round the stock, the idea of confining them in with grafting wax suggested itself to me, which experiment I tried: but found it unsuccessful, as the new wood was forming, and the bark expanding, the wax came off before the buds had time to grow in.

I next spread some grafting wax thinly on cotton cloth, and confined the buds in with a strip of it, letting it go part around the stock, but the result was, as the tree increased in circumference, the plaster started off at one end, and the buds fell out. I then tried the experiment of cutting my plaster of a length sufficient to reach a little more than around the stock, and having inserted the bud, put it round the tree, and pinching the two ends together, caused them to adhere and found no farther trouble, as the two ends of the cloth separated just as fast as the growth of the tree required.

I set about two hundred in this way; and they nearly all took well, and have grown rapidly during the present season. The usual way of tying the buds in with a string, requires nearly twice the time for the operation in the first place, that my method does; and is also otherwise objectionable, as if the string is not attended to in proper season and loosened, it will often cut into the bark of the tree and injure the buds, and sometimes weaken the tree. if small, so much that the wind will break it down; but by my method all these evils are obviated.

Ira Hardy

East Bradford, Aug. 14, 1844. [*Mass. Plough.*

Liquid Manure.

It is my humble opinion (after having tried the cistern, pump, and liquid manure cart system,) that it would be far better, and more economical, to put burnt soil, turf, or road-scrapings, early in the autumn, to absorb the liquid manure, than to be at the expense and trouble of conveying it in carts from the cistern. It is my invariable custom to put my store sheep into yards during the winter months. Last winter I had the bottom of one of the sheep-yards covered with soil. It absorbed the moisture, kept the yard dry, and my sheep were remarkably healthy, free from foot-rot, and never wintered better. In turning the soil up with the manure in the spring, I found it thoroughly impregnated with the urine from the sheep. I should imagine that one cartload of the said soil contained a very great quantity of the very best liquid manure. The expense of conveying it to the land has been considerably less than taking it from the cistern; besides, I had an opportunity of putting the whole on my turnip land, at a seasonable time, whereas I could not have saved it in my cistern till that time, as it would not have held it.

With all due deference to the opinions of the tank men, I would advise a trial of this plan previously to making cisterns, purchasing pumps, carts, &c., as I am of opinion it is the best way of securing the liquid manure, and by far the least expensive in conveying it to the land. In conclusion, I would beg my brother farmers to well digest the sage advice given by the noble President of the Royal Agricultural Society, at the late dinner at Southampton:—"Try cautiously those things which are likely to succeed, and do not expend large sums of money on things which you do not know whether they will succeed or not. If you find your experiments succeed, then go into the matter gallantly and well."—*Henry Hudson, jr. in London, Agricul. Gaz.*

Poor Tiny—she died—Overflow in the Gaul.

Mr. Editor,—On reading in the Ploughman of July 20, the description of a new distemper among cattle in Mallow, (Ireland), purported to be copied from a London paper, we were reminded of a case very similar, if not the same, which took off a heifer of ours last fall. At the time of dropping her calf the 18th of July last year, or rather a little before, we noticed a difficulty in her breathing; soon after we discovered a small bunch about midway between her brisket and jowls On examination at first it appeared to be attached to the windpipe, but subsequently it was found to be otherwise, yet closely crowding upon it. At the same time she began to fail, looked languid and ate but little. We supposed at first her disorder was the garget, so called,—nor are we entirely satisfied now that this might not be the case—and accordingly administered the various remedies—garget-root, onion, saltpetre, spirits turpentine and worm-wood—for this ailment, but all to no purpose; still she faltered, grew weak, and there soon appeared a trouble in her efforts to ruminate. Her eyes became sunken and dull and she soon dwindled to a mere skeleton, like one in the last stages of consumption. We saw at once it must soon be all over with her—"poor Tiny must die," as die she did. On examination we found in her throat about the gullet and windpipe hard bunches full of matter somewhat like the core of a sore. We found also similar bunches in other parts of her body. Found on opening her the gall-bladder full to *overflowing* and a yellowish tinge about her vitals; and also in other parts of her body. This last circumstance gave us to think it might be the *yellows* or *overflowing of the gall* that ailed her.

As we pretend to but very little veterinary knowledge, these remarks and the description are submitted to the consideration of those more acquained; hoping they may see cause to communicate through the columns of the Ploughman. Doubtless it will be appreciated by many of your readers, Mr. Editor; certainly by your humble servant. Respectfully,

B. F. Wilber.

Butter's Vale, Aug. 1844.

☞In latter years we have not heard much of the complaint called "the overflow in the gaul."—Soot and eggs used to be administered for it. It was considered a kind of dyspepsia, a disorder of the stomach.—*Editor Mass. Ploughman.*

Weaning Lambs on Grass.—Our farmers in Maine, generally, let the lambs run with the sheep until housing time, taking no trouble in regard to the weaning of them. The most of them are weaned by their dam by that time, but they have nevertheless sucked so late that the dams are reduced in flesh and come to the barn in poor order, and the lambs themselves have not been long enough on grass to get fairly used to that diet alone, especially if they are not wholly weaned before the frosts begin to diminish the goodness of the grass crop. To obviate these difficulties, some farmers separate the lambs from their mothers by the 20th of August, and put them into a separate field of good grass, where they can fill themselves as soon as they find that they can get no more rations from the udder. The consequence is that such lambs get accustomed to do without milk—fill themselves by grass and come to the barn all ready to take hold of hay, almost as well as the older portions of the flock, and the mother has time to recruit and get in good flesh before cold weather, and will, in consequence, winter on less expensive food and need less care.—*Maine Farm.*

The Southern Farmer and Gardener says that, by an experiment recently made, it was ascertained that clover and timothy seed would cease to germinate at the depth of two and a half inches.

ASHES FOR CORN.—Mr. Aaron Cass, of West Roxbury, planted about two acres of corn last spring on very dry sandy land, and when it was suffering in a severe drought, he put about a pint of wood ashes around each hill; this soon made a great change; the corn revived and grew well notwithstanding the drought continued. We examined this piece some time since, and it was one of the finest we have seen during the season. Mr. Cass shows much skill and good judgement in farm management, and he considers this application of ashes a profitable manure. The increased quantity of corn this season will be only a part of the advantage, for the good effect of the ashes will continue long, in the production of grass or other crops. —*Bost. Cult.*

DISEASED POTATOES.—We learn from several farmers, that their potatoes are dying, and that their crop will be almost an entire failure. We have seen several fields, mostly of the pink eye variety, where the tops were dead. The potatoes probably not more than half grown. What is the cause of this, we do not know. The season here has been favorable for the crop. We have noticed among some early potatoes we have raised, that a considerable portion are affected with the disease, which proved so disastrous to the potatoe crop in this country, and in England last year. We invite the attention of correspondents to this subject, and hope to hear from them in our next number. J.

Central N. Y. Farm.]

Tobacco.—We are informed that Mr. Horatio Sargent, has fifteen acres of Tobacco in one piece, growing in "plain field" in this town. In another spot, we observed he has several acres of the same "noxious weed." If we could look complacently on tobacco at any time, or in any *shape*, we should say that Mr. Sargent's fields looked well. In the matter of tobacco, we feel much as John Randolph did towards sheep. But if, as we understand, a good tobacco crop yields $100 to the acre, there is more money to be made in raising it, than in raising sheep.—*Springfield (Ill.) Republican.*

"CHECKING UP" HORSES.—Among the various modes invented for torturing, without any benefit to the owner, that noble animal, the horse, one (in its *excess* at least) is the present mode of checking him.—A horse that has been accustomed to it from a colt, and never been used for heavy draughts, will perform with it in a light vehicle, without any inconvenience. When a horse is called upon, however, to draw a heavy load over uneven ground, the case is different. He then needs a free use of his head and neck, and naturally inclines them downward. To check up a horse, and force him to draw a heavy load, is a piece of cruelty a little too severe. It is as if —only a hundred times worse—you should take a farmer who had been accustomed to labor in his loose trowsers and frock, put on him tight pants strapped snugly down, a vest and coat fitted and girt up *a la dandy*, and then put a dull scythe into his hands, and pointing to grass of three tons to the acre, tell him to mow.—*Prairie Farm.*

TO PREVENT HORSES BEING TEASED BY FLIES.—Take two or three handfuls of Walnut leaves, upon which pour two or three quarts of cold water, let it infuse one night; and pour the whole next morning into a kettle, and boil for quarter of an hour; when cold it is fit for use.—Moisten a sponge with it, and before the horse goes out of the stable, let those parts which are most irritable be smeared over with the liquor. Every "merciful man" who uses a horse during the hot months should promote his comfort by this simple measure.

Pulverization. *Decomposition.*

A. G. MOTT,

Corner Ensor and Forest streets, Baltimore, sole agent for the sale of "THE BOSTON CENTRE DRAUGHT PLOUGH," Prouty and Mears' self sharpening patent, with new patent gearing.

By this admirable arrangement, the labors of man and team are lessened one half, while the power and steadiness of draught obtained are so great that any depth of furrow is broken up, pulverized, and carried completely over, with perfect ease and facility, and the precision of the spade.

Prices from 7.50 to 13 dollars, with extra point and share. No extra charge for the new gearing. Castings always on hand.

"Spade labor, the perfection of good husbandry."

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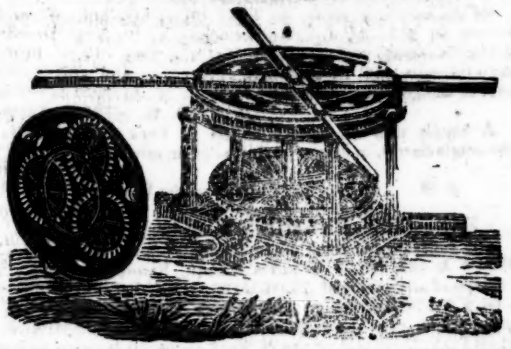

MARTINEAU'S IRON HORSE-POWER IMPROVED

Made less liable to get out of order, and cheap to repair, and at less cost than any other machine.

The above cut represents this horse-power, for which the subscriber is proprietor of the patent-right for Maryland, Delaware and the Eastern Shore of Virginia; and he would most respectfully urge upon those wishing to obtain a horse power, to examine this before purchasing elsewhere; for beauty, compactness and durability it has never been surpassed.

Threshing Machines, Wheat Fans, Cultivators, Harrows and the common hand Corn Sheller constantly on hand, and for sale at the lowest prices.

Agricultural Implements of any peculiar model made to order as the shorest notice.

Castings for all kinds of ploughs, constantly on hand by the pound or ton. A liberal discount will be made to country merchants who purchase to sell again.

Mr. Hussey manufactures his reaping machines at this establishment. R. B. CHENOWETH,

corner of Front & Ploughman sts. near Baltimore st. Bridge, or No 20 Pratt street. Baltimore, mar 31, 1841

BALTIMORE CO. AGRICULTURAL SOCIETY.

At the annual meeting of the Society held at Govanstown, on the 20th day of October, 1843, the following resolution was adopted:

"*Resolved*, That such counties of Maryland as may form societies auxiliary to this, shall on the payment of fifty dollars to the Treasurer of this society, be admitted on equal terms as regards competition for premiums, if in the opinion of the Executive Committee, such an arrangement shall appear to be expedient."

The Executive Committee at a meeting held in Baltimore, Dec. 23d, 1843, having fully concurred in the above resolution, do cordially invite the farmers of the counties of the state to form auxiliary societies, and become competitors for premiums offered by this society. JOHN H. B. FULTON, Rec. Sec.

FOR SALE, THAT VALUABLE FARM & MILLS,

Known as the Mansion Farm or Owings' Lower Mills, situate 11¼ miles from the city, on the Reisterstown turnpike, upon which it binds for half a mile, having the Westminster branch of the Susquehanna rail road within 200 yards of the dwelling. This Farm contains about 416 acres, 80 acres of which are in wood, the greater portion of the residue in a high state of cultivation, having had near 10,000 bushels lime put on it the last few years—the growing crop of wheat, rye, oats, &c. &c. looking remarkably well, the meadow comprising about 100 acres is prime land, which has recently been reset.

The improvements consist of a large and well built brick Mansion House, 60 ft. front by 40 ft. deep, exclusive of the back and side additions. A substantial large brick Barn, having stalled stabling underneath for 25 head of cattle, wagon and carriage houses, dairies, smokehouse, blacksmith's shop, corn houses, &c. &c.

A good brick GRIST MILL, with a comfortable stone Dwelling for the miller; the mill is in good order, and can grind 40 bbls. of flour per day, which quantity could be increased with a trifling expense.

An excellent SAW MILL has recently been double geared and capable of cutting 2000 feet per day; these mills have a good run of country custom, with an abundance of water at all seasons of the year, the fall of water being about 30 feet. Additional works might be erected at other sites on the premises.

This farm could conveniently be divided, having on the upper portion of it, in addition to the above improvements, a framed welling and log cottage, with a good barn and stabling. The whole property is in superior order and repair. The proprietor residing out of the state, is disposed to sell it for less than its value, on accommodating terms. Any person desirous of viewing the premises can do so by applying to the manager on the premises. For terms of sale and further particulars apply to

REYNOLDS & SMITH,

je 26 No. 40 N. Howard st.

AYRSHIRE BULLS.

Several young Bulls for sale, of this valuable dairy stock; they are from stock selected with great care in Scotland, for a gentleman of this vicinity. One of the bulls is one year old—his appearance is impaired by an injury received in his hip from another bull but not of a nature to prevent his being fit for service. Price $50, deliverable in this city. One other Bull, 4 months old, another 1 month old, dams very superior milkers: the dam of the younger gives when fresh between 7 and 8 gallons a day.

Likewise a 15-16 Durham bull Calf, 4 months old, sired by the celebrated bull "Washington Irving," a fine, handsome calf. Either of the calves can be had for $50. Call on S. Sands, at this office. je 12

BALTIMORE MARKET, Sept. 18.

Beef, Balt. mess,	8½a	Butter, Glades, No. 1,	13a
Do. do. No.1,	6½a7	Do. do. 2,	7a11
Do. prime,	5a	Do. do. 3,	5a7
Pork, mess	10	Do. Western 2,	6a
Do. No. 1	9½a9¾	Do. do. 3,	5a6
Do. prime	8	Lard, Balt. kegs, 1,	6½a7
Do. cargo,	a	Do. do. 2,	none
Bacon, hams, Ba. lb	6½a7	Do Western, 1,	a6¾
Do. middlings, "	5a5½	Do. do. 2,	5a5½
Do. shoulders, "	4a4½	Dg. do. bls 1,	6a6½
Do. asst'd, West.	4½	Cheese, casks,	6
Do hams,	5a7	Do. boxes,	5a8½
Do. middlings,	a5	Do. extra,	12a15
Do. shoulders,	3¾a4		
COTTON—		Tennessee, lb.	
Virginia,	9a10	Alabama,	11a12
Upland,	9	Florida,	10a12
Louisiana,	11¾	Mississippi	
North Carolina,	10a11		
LUMBER—			
Georgia Flooring	12a15	Joists & Sc'ling, W.P.	7a10
S. Carolina do	10a12	Joists & Sc'ling, Y.P.	7a10
White Pine, pann'l	25a27	Shingles, W. P.	2a9
Common,	20a22	Shingles, ced'r,	3.00a9.00
Select Cullings,	14a16	Laths, sawed,	1.25a 1.75
Common do	8a10	Laths, split,	50a 1.00
MOLASSES—			
Havana, 1st qu. gl	30a31	New Orleans	31a
Porto Rico,	29½a30	Guadaloupe & Mart	26a28
English Island,		Sugar House,	28a36
SOAP—			
Baltimore white,	12a14	North'rn, br'n & yel.	3¾a4¼
brown & yell'w	4½a5½		
TOBACCO—			
Common	2 a 3¾	Yellow,	8 a10
Brown and red,	4 a 5	Fine yellow,	12a14
Ground leaf,	6 a 7	Virginia,	4 a 9
Fine red	6½a 8	Rappahannock,	
wrappery, suitable		Kentucky,	3 a
for segars,	8a13	St. Domingo,	13 a11
Yellow and red,	7a10	Cuba,	15 a38
PLASTER PARIS—			
Cargo, pr ton cash	2.75a	Ground per bbl.	1.12a
SUGARS—			
Hav. wh. 100lbs	9a10.50	St. Croix, 100lbs	7.00a8.00
Do. brown	a7.50	Brazil, white,	a
Porto Rico,	6.70a7.50	Do. brown,	
New Orleans,	6¼a6¾	Lump, lb. c.	

FLOUR—We quote

Superfine How. st., from stores, bl.		$3.93a4.
Do. City Mills,		4.
Do. Susquehanna,		4 a
Rye, first		2.87a
Corn Meal, kiln dried, per bbl.		2.62
Do. per hhd.		11.75

GRAIN—			
Wheat, white, p bu	95a100	Peas, black eye,	50a55
" best Pa red	90a	Clover seed, store	$5.50a
" ord. to pri. Md	86a95	Timothy do	2.a2.50
Corn, white,	41a42	Flaxseed, rough st.	1.35
" yellow Md.	44a46	Chop'd Rye, 100 lbs.	1.25
Rye, Md.	53a58	Ship Stuff, bus.	20a
Oats, Md.	21a22	Brown Stuff,	15a
Beans,	101	Shorts, bushel,	10a
FEATHERS—perlb.			29a
COFFEE—			
Havana,	7 a 8	Java, lb.	10 a12
P. Rico & Laguay.	6¾a 8	Rio,	6¾a7¾
St. Domingo,	5¾a 6	Triage,	3¼a 4¼
CANDLES—			
Mould, common,	9a10	Sperm,	32a33
Do. choice brands,	10½	Wax,	60a65
Dipped,	8a 9		

20 a22 cts. We quote Rye at 50 a 52 cts.

Tobacco. There has been no extra demand for Tobacco during the past week. We sum up 325 hhds. Maryland sold at prices varying from $2 to $12, and 190 hhds. Ohio at $2,75 a$12. The stock of good and prime tobacco is small and sells fast. Inferior and common sorts continue dull. We quote as follows for Maryland, for frosted $1,50 to $2; common to good common and middling $2 to $5, good $5,50a7; fine $7,25a12. We quote for Ohio, common ta middling $250a4,50, good $5a6, fine red wrappery, $6,50a10; fine yellow $8,50a12; and extra wrappery $11a13. The inspections are 1361 hhds. including 959 Md. 341 Ohio, and 61 Kentucky.

Grain.—We quote prime white for family flour at 95 a100 cts. and ordinary to good 86a95 cts good to prime red Maryland red Wheat is selling at 83a87½ cents, and fair to good at 78a83 cts. per bushel. Virginia Wheat is worth about the same prices. White Corn 41a42 cts and yellow 44a46 cents; Rye 53a58 cts. and Oats 21a22 cents per bushel.

NEW AGRICULTURAL ESTABLISHMENT,

At the old stand formerly occupied by JOHN T. DARDING, *fronting on Grant & Ellicott streets, adjoining Dinsmore & Kyle, Pratt st. wharf.*

G. H. BRYSON & J. JOHNSON,

Having entered into a co-partnership under the name G. H. Bryson & Co., offer for sale at reduced prices, a great variety of Ploughs, Casting, &c., as

Davis,	Hill Side,	Grain Cradles,
S & M.	Sub Soil,	Cutting Box,
Chenoweth,	Freeborn & Hitchcock,	Corn Shellers,
Woods,	Cultivators,	Corn and Cob
Wiley,	Harrows,	Crushers, &c.
Bar Sher,	Wheat Fans,	

Ross' Patent Hay and Straw Cutter, and every variety of FIELD AND GARDEN SEED.

Repairing done on the lowest terms. Castings by the ton or otherwise. A liberal discount allowed to those who buy to sell again. aug 21 G. H. BRYSON & CO.

HARVEST TOOLS.

In store and for sale by J. S. EASTMAN, Pratt street, near Charles, Wolf's very superior Grain Cradles, (such as I have been selling for the last five years;) Grain and Grass Scythes; steel and wood Hay Forks; an assortment of Hay Rakes, Horse Powers and Threshing Machines, of different patterns, for 2 and 4 horses; Wheat Fans, plain and expanding Corn and Tobacco Cultivators, Corn Planters, my superior Straw Cutters, of all sizes, with wood and iron frames. Also a large assortment of PLOUGHS, of all sizes, and other farming implements. May 22

PERUVIAN GUANO.

The subscriber, agent for the Peruvian Company, has received per ship Orpheus, 400 tons of Peruvian Guano—and will hereafter be regularly supplied with the article by the Company, *who alone have the right to export it.*

Orders for any quantity, (not less than one ton) will be supplied at the following rates,—

From 1 to 5 tons,	$3	per 100 lbs.
" 6 to 10 "	$2,87½	" "
Above 10 tons,	$2,75	" "

A Pamphlet upon the nature, properties and results of this Guano, will be issued from the American Farmer Office, in a few days free of charge.

Applications post paid, will meet with prompt attention.

SAML. K. GEORGE,
sep. 5 No. 2 German st., Baltimore.

CATTLE SHOW,
AGRICULTURAL EXHIBITION & PLOUGHING MATCH.

The Baltimore County Agricultural Society will hold its third annual FAIR on WEDNESDAY AND THURSDAY the 23d and 24th days of October, 1844, at Govanstown, 4 miles from Baltimore on the York Road.

The PLOUGHING MATCH will be held on the first day.

The ANNUAL ADDRESS will be delivered on the second day.

The Executive Committee do not deem it necessary to present at this time a list of the various articles for which premiums will be offered, but assure the public that they are determined to go the very extent of their means in encouraging the various branches of Domestic industry, and in endeavoring to excite an increased emulation in cultivating the soil, in raising the most improved breed of stock, and in the manufactures of husbandry. Encouraged by past experience, the Committee appeal with confidence to the Farmers, Mechanics and Manufacturers, and above all, to the ladies of the City and County to aid them by their presence and contribution, to make the Fair of 1844 an event of surpassing interest to our Agricultural friends and the public generally.

HENRY C. TURNBULL,
WM. GOVANE HOWARD,
JNO. B. H. FULTON,
Committee of Arrangements.

Sep 5

NEALE & LUCKETT, *No. 3, Light street wharf,*

Have received from a gentleman in Maryland, a supply of FLY PROOF WHEAT for Seed, which they offer for sale at $14 per bushel. This is a very superior wheat, weighing from 60 to 65 pounds to the bushel, yielding largely upon lands of tolerably quality, safe from the ravages of the fly, and making a rich and very nice flour. It is of German origin, and a different species from the *Mediterranean wheat*, which it is believed does not yield good flour. Persons wishing to supply themselves with seed, are desired to call and examine the sample now on hand. A few hundred bushels more can be obtained from the same source, if early application be made. Aug 28

EXTENSIVE SALE OF DURHAM CATTLE.

On THURSDAY, the 26th of September next, at 10 o'clock, at the Exhibition ground of the Philadelphia Agricultural Society, Rising Sun Village, on the Germantown Road, 3 miles from Philadelphia, will be sold—A superior lot of improved Short Horns, from the celebrated herd of James Cowen, Esq. of Mount Airy, consisting of young Bulls, Cows, Heifers and Calves, of high blood, imported, or immediately derived form imported animals of great repute.

Also some fine young Heifers, from one half to seven eighths blood, sired by Leander, Son of Dairy Maid.

Mr. Gowen assures us that this sale will in point of numbers and character, far exceed his sale of 1842. Leander and Colostra, the younger, will be among the Bulls; and the celebrated Dairy Maid, the beautiful Cleopatra, Walnut, and Miss Model, among the Cows to be offered.

☞Catalogues will be ready in due time, and the Cattle will be on the ground for exhibition two days previous to the sale.

We invite the special attention of Breeders and the lovers of fine stock in general, to this splendid selection of Cattle. So excellent an opportunity for procuring fine specimens of the best Durhams, but seldom occurs. WOLBERT & HERKNESS,
aug. 28 Auctioneers.

AGRICULTURAL MACHINERY,
Manufactured by Robt. Sinclair Jr. & Co. No. 60 Light street, viz:

Corn Mills, price	$40	most approved)	8 to 12
Sinclair & Co.'s Corn and Cob Crushers,	30	Subsoil Ploughs,	8 to 12
Baldwin's do.	65	Other kinds, embrac'g about 25 sorts, and suited to every variety of soil,	2.50 to 13
Goldsborough's Corn Shelling & Shucking Machine,	35	Corn & Tobacco Cultivat.	5 to 6
Hand do. assorted,	15 to 17	Harrows,	6 to 16
Vegetable Cutters,	20	Grain Cradles & Scythes,	4 to 5
Threshing Machines,	40 to 60	Plough and Machine Castings,	per lb. 4 to 5
Horse Powers,	75 to 100	Fanning Mills,	25 to 30
Cylindrical Straw Cutt.	28 to 45	Horse Hay Rakes,	11
De. extra large,	75	Grindstones, on friction rollers,	13
Common Straw Cutters,	5 to 12	Limp Spreaders,	30
Botts & Green's do.	25 to 30		
Pierce's and Dolphin self-sharpening Plows, (new &			

Ploughs and Machinery REPAIRED on reasonable terms. Also
GARDEN AND FARMING TOOLS—of every sort.
GARDEN AND FARMING SEEDS " "
GARDEN AND FARMING BOOKS " "

☞The agricultural community will find it their interest to examine our stock of Implements, Seeds, &c. We promise purchasers polite attention and lowest market prices. R. S. Jr. & Co.

POUDRETTE

Of the very best quality for sale. Three barrels for $5, or ten barrels for $15—delivered free of cartage by the New York Poudrette Company, 23 Chambers street, New York. Orders by mail, with the cash, will be promptly attended to, and with the same care as though the purchaser was present, if addressed as above to

D. K. MINOR, Agent.

A supply now on hand from the N. York establishment, by the single barrel, or larger quantity. For sale by

SAML. SANDS,
je 19 office of the Farmer, Baltimore st.

FARMERS! EXAMINE FOR YOURSELVES!

The well selected stock of Implements belonging to JAMES HUEY & CO. No 7 BOWLY'S WHARF, Baltimore. Our stock consists of a large lot of PLOUGHS, SHEARS, POINTS, and CULTIVATORS, which we will sell low to suit the times—among which rank the economical WILEY, and the MINOR & HORTON PLOUGH of the N York composition metal and manufacture—the share has a double point and edge, equal to two shares and points. We keep on hand all kinds of PLOUGHS, premium CORN SHELLERS, HAY & STRAW CUTTERS, Corn & Cob CRUSHERS, Horse RAKES, Corn and Tobacco HOES. ☞Farmers and Planters on the Eastern and Western Shores may send their orders with confidence, as they will be attended to with promptitude. We also keep GARDEN & FIELD SEEDS. Thankful for past favors, we hope to merit a continuance of the same. Agents for the above implements,

S. L. STEER, Market st. near the corner of Paca, Baltimore
E. & W. BISHOP, Bel-air market, Baltimore. fe 28

PORTABLE TUBULAR STEAM GENERATOR.

The undersigned *successors to the late firm of Bentley, Randall & Co.* are manufacturing, and have constantly on hand a full assortment of the above Boilers, which within the last few months have undergone many improvements: we can now with confidence recommend them for simplicity, strength, durability, economy in fuel, time, labor and room, to surpass any other Steam Generator now in use. They are equally well adapted to the Agriculturist for cooking food for cattle and hogs, the Dyer, Hatter and Tanner for heating liquors, to Manufacturers (both Cotton and Woollen) for heating their mills, boiling sizing, heating cylinders, &c., to Pork Butchers for heating water for scalding hogs and for *rendering lard*, to Tallow Chandlers for melting tallow by circulation of hot water (in a jacket,) to Public Houses and Institutions for cooking, washing and *soap making*, and for many other purposes for all of which they are now in *successful* operation; the economy in fuel is almost incredible; we guarantee under all circumstances a saving of *two thirds*, and in many instances *fully three fourths*—numerous certificates from the very best of authority can be produced to substantiate the fact. We had the pleasure of receiving the premium for the best Steam Apparatus at the Agricultural Fair held at Govanstown in October 1843.

Manufactory, McCausland's old Brewery, Holliday st. near Pleasant st., Baltimore, Md.

Dec. 6. tf RANDALL & CO.

GRAIN CRADLES! GRAIN CRADLES!

We mean what we say when we assert that A. G. MOTT, corner of Ensor and Forest sts. Old Town, near the Bel-air market, is now making up, and has for sale, the very best and cheapest article of the kind in the Baltimore market, and no mistake. Try them. je 19

MEDITERRANEAN WHEAT.

600 Bushels of this Wheat for Seed, raised by a gentleman in Baltimore County, will be sold low, if immediately applied for.—The quantity is not to be surpassed by any wheat raised in the State of Maryland. A sample can be seen at the office of the "American Farmer." For Sale by SAMUEL SANDS.

HORSE POWERS AND CORN CRUSHERS.

The subscriber has for sale the above Implements which he can recommend to all purchasers as being SUPERIOR ARTICLES. They are made with a view to strength, durability and efficiency, possess great power, are constructed upon the very simplest principles of mathematical exactitude, and are calculated to do as much work as the largest farmer can desire, and being free from complication, are not easily put out of order, and easy of repair. For proof of their intrinsic value, the subscriber refers to the following certificate from one of our most intelligent practical farmers, who combines with a knowledge of farming that of machinery, and is every way competent to pass a correct judgment.

GEORGE PAGE, Machinist,
West Baltimore st. Baltimore.

Orders and letters of inquiry, POST PAID, will be promptly attended to. feb 14

I hereby certify that I was one of the committee on Agricultural Implements and Machinery at the last fair of the Baltimore Co Agricultural Society—that I attended the first day of examination but not the last: that after a full and fair examination of all the other machines of similar kinds, and an interchange of opinions among the judges, it was determined by a vote of 4 out of the 5 judges, to give Mr. GEORGE PAGE the first premium on his CORN and COB CRUSHER and HORSE POWER, they each being considered very superior, both in power and operation, as well as durability to any others on the ground. It was universally admitted, that the Corn and Cob Crusher could do twice as much work as any other machine of the kind on the ground—and I must confess, that I was both mortified and surprised, to find by the award of my co-judges, that they had changed their opinions after I left, and it had been agreed upon to award the above premiums to Mr. Page by so decided a vote as 4 to 1, that they should afterwards change that determination after I had left without consulting me is alike a matter of surprise and mortification. ABNER LINTHICUM, Jr.

JAMES MURRAY'S
PREMIUM CORN AND COB CRUSHERS.

These already celebrated machines have obtained the premium by a fair trial against the other Crushers exhibited at the Fair held at Govanstown, Balt. co. Md. Oct. 18th, 19th and 20th, 1843, and the increased demand enables the patentee to give further inducements to purchasers by fitting an extra pair of grinders to each machine without extra charge. Prices $25, 30, 35, 40, 45.

ALSO, small MILLS, which received a certificate of merit, for $15.

I have also superior CUTTING BOXES, such as will bear inspection by either farmers or mechanics.

Also, Horse Powers, Mills, Corn Shellers, Mill and Carry-log Screws, small Steam Engines, Turning Lathes, &c. &c.

Also, a second hand Steam Engine, 16 horse power, and the works for two Saw Mills.

Any kind of Machine, Model or Mill-work built to order, and all mills planned and erected by the subscriber, warranted to operate well.

☞Orders can be left with J. F Callan, Washington, D. C.; S. Sands, Farmer office; or the subscriber,

Mr. Abner Linthcum, jr., and all Machinests are invited to a fair trial of Grinding against my Corn and Cob Crushers, and if I do not do more work, taking the power, quantity, and quality into consideration, I will give them my machine gratice.

Patent Rights for sale by the subsbriber.

no 8 JAS. MURRAY, Millwright, Baltimore.

MANGELWURZEL AND FRENCH SUGAR BEET SEED,

Just received and for sale by

ROBT. SINCLAIR JR. & CO.
Ap 22 Seedsmen, No. 60 Light st.

CLEAZY'S IMPROVED SELF-SHARPENING PLOUGH.

J. S. EASTMAN, Pratt street, a little west of the Baltimore & Ohio rail road Depot, would invite public attention to this superior implement, both as to its simplicity, cheayness and good work with light draft. He will furnish patterns to manufacturess living out of this state on reasonable terms. may 1

NEW PATENT CORN MILL,—CORN AND COB CRUSHER.

The subscribers have recently invented and constructed a Corn Mill and Crusher, to be worked by hand or horse power, which are remarkably simple and admirably adapted to the present wants of farmers. Either of the above machines may be seen in operation at our warehouse, No. 60, Light street.

ROBT. SINCLAIR, JR. & CO.
PRICES—Corn Crusher $30—Corn Mills $40. ap 29

THE BOMMER MANURE METHOD.

We wish to afford every facility to the introduction of this method, as the better it is known the higher it will be esteemed. If farmers who are living in a neigborhood will club together, we will offer them the following inducements to purchase, viz. To any club of Five ordering the method to one address, we will make a deduction of 15 per cent. To a Club of Ten, 20 per cent. reduction, and to larger clubs, a still larger discount upon our established rates for single methods, which are as follows:

For a garden up to 20 acres,	$6
" 100 acres arable land,	10
" 200 " "	15
" 300 " "	18
" 400 " "	20
Unlimited number of acres,	25

☞Purchasers of a smaller right can at any time increase it by paying the difference in price. ABBETT & CO.

Southern proprietors of the Patent Right,
at Parsons & Preston's Book Store, adjoining the Rail Road Depot
mh 13 tf in Pratt street, Baltimore.

☞Those who find it more convenient, can leave their orders with S. SANDS, at the office of the *American Farmer*, who will promptly attend thereto. mh 13

MURRAY'S CORN & COB CRUSHERS & GRINDERS.

The subscriber having so simplified the construction of the Machine, and having at the same time added to its efficiency, both for the quantity and quality of its work, is now enabled to sell for $25 Crushers of the capacity of cylinder heretofore sold at 40 dollars—Hand Crushers for 20 dollars—either with or without self-feeders. Any other machines made to order. Also, Repairs of all kinds of agricultural implements. These machines can be seen in operation opposite the Willow Grove Farm of Mr. J. Donnell.

fe 14 WM. MURRAY.

AGRICULTURAL IMPLEMENTS.

J. S. EASTMAN, at No. 36 West Pratt st. about half a square west of the Baltimore and Ohio rail road depot, has on hand a great variety of Plows and Plow Castings, and other Farming Implements at wholesale and retail, as follows, viz. his newly patented Cleasy self-sharpening plows of 7 different sizes, (and one large left hand do) he has many testimonies to show the superior merits of this implement.

Also—Gideon Davis' improved ploughs, of all sizes, wrought and cast shares, do do. Connecticut improved, a superior article for light soil; Evans' reverse point ploughs, with cast shares only; Wyman's No. O. self-sharpeners, various bar-share and coulter ploughs and superior side ploughs, etc. etc. Also, corn and tobacco Cultivators, wheat fans, cylindrical straw cutters of various sizes, a superior article; lime carts, superior Pennsylvania made grain Cradles; small Burrstone Mills for driving by horse power or steam; Corn Shellers, Threshing Machines (and horse-powers for two or four horses) made very durable and to thresh clean. Bachelder's and Osgood's patent corn planters, etc. with a great variety of their implements made of the best materials and in the best manner. All the above are sold at reduced prices to suit the times. may 1